Splrt.-1

Work Order ID 9			*989	52*					Page 1
Item ID: D3183-9 Revision ID: Item Name: Cap	10	o gr Ac	cept	*N900	<u>040100</u>)* s	etup Start Stop		S1* S2*
Start Date: 3/27/13 Required Date: 3/27/13 Reference:	Start Qty: 60.00 Req'd Qty: 60.00	*60* *60*		Cust Item I Customer:	D:				
Approvals: Process	Plan: MC3 D	ate: 13-03-28 1	Tooling:	Da	ite:	R	un Start	*NI	R1*
QC:		ate: S	SPC (Y/N):	Da	nte:		Stop	*NI	R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty		Reject Number	Insp. Stamp
Draw Nbr I	Revision Nbr								
D3183 F	Rev C1								
*100 *100* Hardinge Hardinge CNC Lathe Small	Hardinge CNC LATHE SMA Memo Turn D3183-9 Ca	LL up as per Folio FA388Deb	0.00 0.00 PD	13/04,	lor	10	Ø	i i	
110	QC2- Inspect parts off machin	ne FAI/FAIB	0.00						
110 QC Quality Control	Memo		0.00	13/04	108	10	Ø		
120	QC8- Inspect parts - second of	heck	0.00	01			-1		
120 QC Quality Control	Memo		0.00	13-04	-08	10	e		

										DQA.	Date.	
NCR: Ye	s / No				WORK ORDER NON-	COI	VFOR	MANCE / UPI	DATE			
										QA Closed:	Date:	
Work Order:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part No					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Cause	Date	Step	Qty	Descr	ription of work order update or Non-conformance		nitial ief Eng	Act Descr	ion ription	Sign & Date	Verification	QC Inspector
oc/Data quip/Tooling Operator Material etup Other Process upplier Training												
						FAUL	T CATE	GORY				
Landing	Gear				General					_	_	
	Bending Centre No Cracks	ot Conce	ntric to (o/s	Bend BOM/Route Broken/Damaged		Grain Hardwa Inspecti	ire ion Incomplete		Ovalized Over/Under Part Incorred	_	Pressure/Forced Temperature/Cure Weld
-	Crushed/ Cuffs	Crimped		-	Burrs Contamination		Instruct	ions Incomplete/L	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Heat Trea	at			Countersink		Mislabe			Positioned W	/rong	_
	Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/S	Surge	Other
	Ripples in	Bend			Drill Holes		Offset		-	20	-	
	Torque W		xtrusion	n	Drawing		Out of 0	Calibration			24 10 10 10 10 10 10 10 10 10 10 10 10 10	
	Turning S	equence			Finish		Out of s	Sequence				

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

98952

Page 2

'March-28-13 10:47:22 AM

N900040100 D3183-9 Accept Item ID: Setup Start Revision ID: Stop *NS2* Item Name: Cap *60* Start Qty: 60,00 3/27/13 Cust Item ID: Start Date: Req'd Qty: 60.00 Required Date: 3/27/13 *60* Customer: Reference: Start Run Process Plan: Date: Tooling: Approvals: Date: Stop QC: SPC (Y/N): Date: Date: Operation Reject Reject Insp. Sequence ID/ Set Up/ Tool ID Tool # Plan Accept Qty Stamp Work Center ID Description Number **Run Hours** Code 130 Identify as per dwg & Stock Location: 0.00 *130* ST235B 0.00 Packaging Memo Packaging QC21- Final Inspection - Work Order Release 0.00 140 *140* MUJ 0.00 Memo Quality Control

											DQA:	D	ate	
NCR: Y	res / No				WORK ORDER NON-	CO	NFOR	MANCE / UP	DATE		QA Closed:		ate:	:
Work Orde	er:				DISPOSITION				AGAINST [DE	PARTMENT	/PROCESS		
Part N	No				Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		1	Water Je d. Eng. Coor re/Packagin Supplie	r	Engineering Quality Other
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	1	Initial nief Eng		tion ription		Sign & Date	Verificati	on	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved			SVE										-	
					F	AUI	LT CATE	GORY						
Landir	Cracks Crushe Cuffs Heat T	Not Conce)/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		-	ion Incomplete ions Incomplete/ enance eled	Unclear		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

March-28-13 10:47:22 AM

Work Order ID:

98952

Parent Item:

D3183-9

Parent Item Name:

Cap

Start Date: 3/27/13

Required Date: 3/27/13

Start Qty: 60.00

Required Qty: 60.00

Comments:

IPP A 06.05.03 New issue KJ

Comments.	11 11 00.00.00	Then about its											
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRINR1.000 Delrin Round Bar 1"		Purchased	No			100	f	2.6700	0.0333	2.1031579	20	12/	4/05

This But full of the state of t

Location MAT018

124942

Loc Qty 2.67

2.67

Loc Code

- 121971

.65

										DQA:	Da	ate:	7
NCR: Yes	s / No				WORK ORDER NON-O	O	IFORN	MANCE / UPI	DATE	QA Closed:	D	ate:	
Work Order:					DISPOSITION				AGAINST	PARTMENT,			
Part No.				_	Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor e/Packaging Supplier		Engineering Quality Other
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance		nitial ief Eng	Act Descr	îon iption	Sign & Date	Verification	on	QC Inspector
oc/Data quip/Tooling perator flaterial etup ther rocess upplier raining napproved													
						AUL	T CATE	GORY					
Landing	Gear Bending Centre No Cracks Crushed/o Cuffs Heat Trea Inspection Ripples in Torque W Turning S	Crimped at n Strip in Bend Vaves in E	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish		Instruct Mainte Mislabe Misread Offset Out of O	ion Incomplete ions Incomplete/L enance eled	Jnclear	Ovalized Over/Under Part Incorrec Part Lost/Mi Part Moved Positioned W Power Loss/S	et ssing /rong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Wave/Tw	Charles Commission			Folio *		NEED CHIEF DE CONCE	Dimensions					

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DART AEROSPACE LTD	Work Order:	98952
Description: Cap	Part Number:	D3183-9
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comm	ents
Ø0.830	+/-0.005	, 829	V		VERN	140-01	+ C 4.
Ø0.720	+/-0.002	. 718			rt	1.	8310
Ø0.747	+/-0.001	. 747	~		**	1.1	1 7
R0.010	+/-0.010	. 010	V		RG		=6
R0.031	+/-0.010	.031	V		R_6.		
0.199	+/-0.001	. 199	1		VERN	PHOOL	
0.276	+/-0.010	. 277	/	H.	1.3	6	
0.039	+/-0.010	. 039	1		1c	t.	5.88%
							0)
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- 1		-					- 11
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		(4)					Z.
						4	
					151		-yers
-					11 16	Tital and	WEST.

Measured by:	90	Audited by:	Af	Prototype Approval:	N/A
Date:	13/04/08	Date:	13-04-08	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.20	New Issue (P/O D3183-045)	KJ/RF	1
В	06.03.09	Dimension Ø0.830 was Ø0.850	KJ/JLM 🔏	all
			7.8	1111

DART AEROSPACE LTD	Work Order:	98952
Description: Cap	Part Number:	D3183-9
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.830	+/-0.005				la la	
00.720	+/-0.002		Jan Brand			Mad
Ø0.747	+/-0.001		The state of	Signal -		1-16
R0.010	+/-0.010		"FILL ST			
R0.031	+/-0.010		720	TE THE		ERLING.
0.199	+/-0.001		37 23			No Park Su
0.276	+/-0.010		1 1 2 1 1		8.4	1000000
0.039	+/-0.010		4-6			
	Thursday 14				1313-1	
41 TD FWA						7-7-5
Maria 81						S. Parketter
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			F# 17 F		34	TIPS THE NEXT
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THE THE STATE OF T	D W. Y.	14				
		de d'adaign		7 E		
**			y Report			

Measured by:	Audited by:	Prototype Approval:	Prototype Approval: N/A		
Date:	Date:	Date:	N/A		

Rev	Date	Change	Revised by	Approved
Α	04.04.20	New Issue (P/O D31	KJ/RF	1
В	06.03.09	Dimension Ø0.830 was Ø0.85	KJ/JLM 🔏	ad



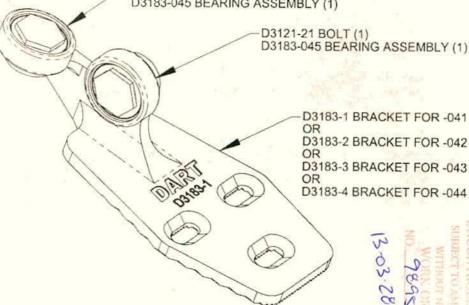


	DESIG	A	DRAWN BY	DART AEROSPACE HAWKESBURY, ONTARIO, CAI	
)	CHECK	THE P	APPROVED	D3183	REV. C
	DATE	04.	02.17	BRACKET ASSEMBLY	SCALE 1:1
	Α	(3.01.24	NEW ISSUE	
	В	- (3.06.17	REMOVE BEARING; 1.012 WS 0.88	2

DEO ATTACHED

04.02.17 ADD -045/-9; 0.182 WAS 0.431 04.11.09 0.830 WAS 0.850

D3121-21 BOLT (1) D3183-045 BEARING ASSEMBLY (1)



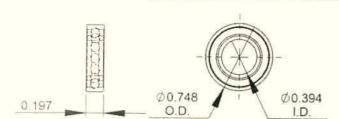
D3183-1 BRACKET FOR -041 (SHOWN)

D3183-2 BRACKET FOR -042 (OPPOSITE)

D3183-3 BRACKET FOR -043 (SIMILAR)

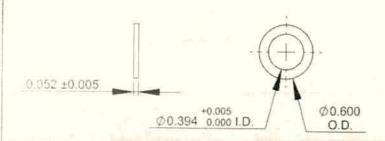
D3183-4 BRACKET FOR -044 (SIMILAR)

D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR) D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

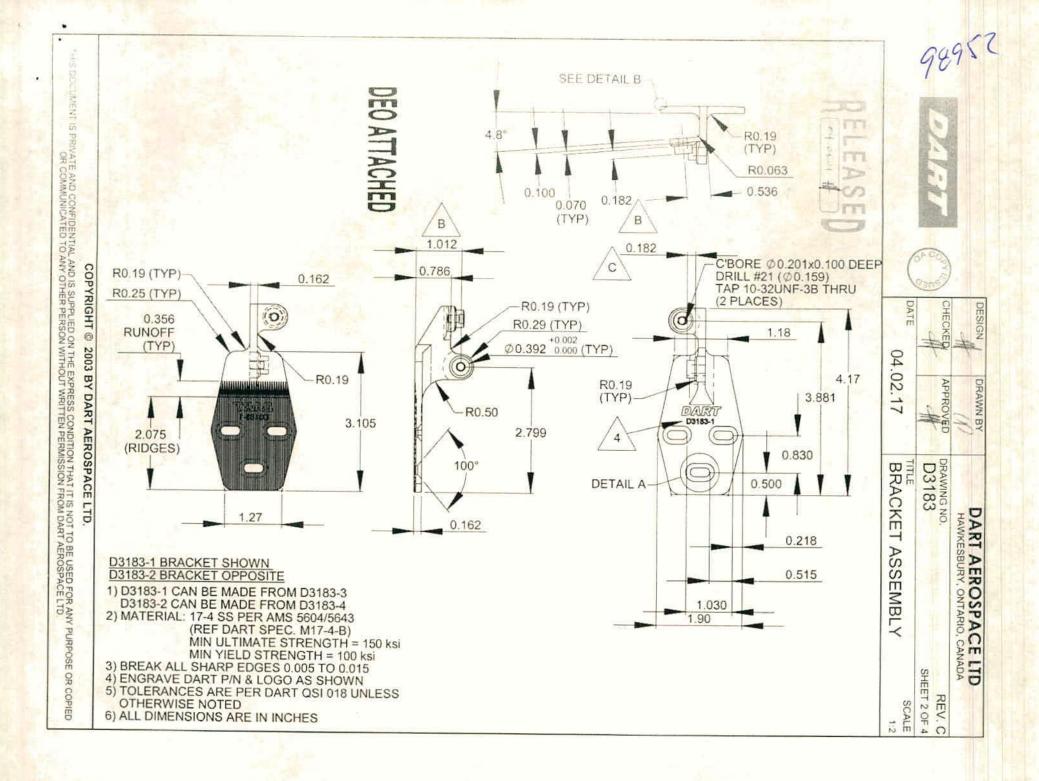
- 1) SINGLE ROW, DEEP GROOVE. CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES

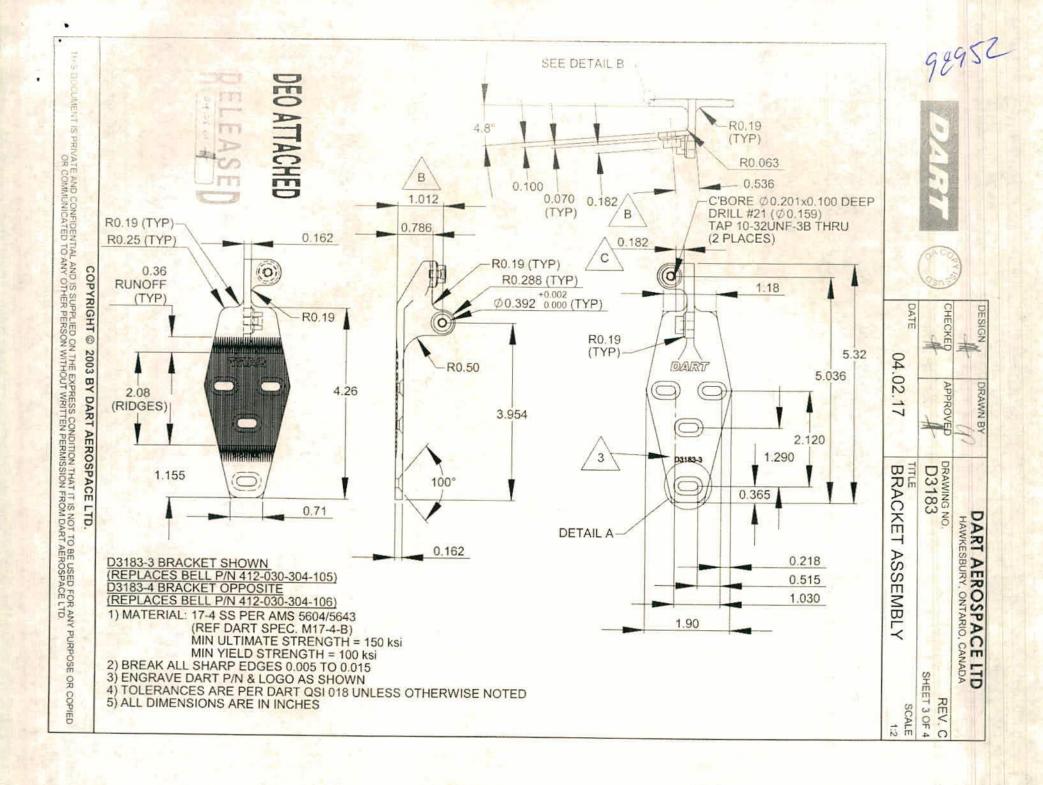


D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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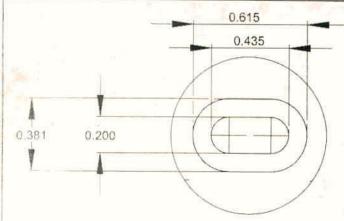








DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED	D3183	REV. C	
DATE 04	.02.17	BRACKET ASSEMBLY	SCALE 1:1	

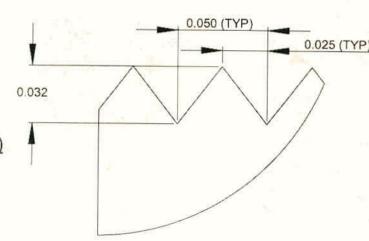


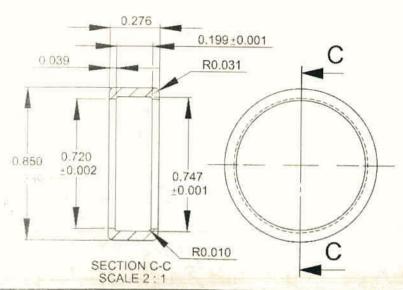
DETAIL A (2:1)

PELEASED

DEO ATTACHED

DETAIL B (20:1)





D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00 (REF DART SPEC. M-DELRIN-R1.00) 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

1) ASSEMBLE D3183-5 BEARING AND D3183-9 CAP

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52999

DRAWING NO. D3183	TITLE	ET ASSEMBLY	REV.C1	DART AEROSPACE I		SHEET NO. SCAL SHEET 1 OF 1 N
DRAWN	go	CHECKED	A	MFG. APPR.	APPROVED AM	DE APPR.
DATE 10	.05.14	DATE 10	.06.30	DATE (0.06.30	DATE 10/06/30	DATE 10/06/30

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT:

Cr = 1720 N (386 lb) MIN [DYNAMIC]

Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012



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